

charge of the Weather Bureau office at that station reports that much favorable comment regarding this service was received.

In this connection it is well to add that the subject of radio dissemination of river forecasts and warnings is receiving increased attention, and daily reports are issued from Pittsburgh, Pa., Cincinnati, Ohio, and St. Louis, Mo. These daily reports include a bulletin giving the stages of the rivers at many points, the amount of precipitation, the daily river and weather forecasts, and a general summary of weather conditions. Flood warnings are of course broadcast from the above stations. From a few others also radio flood warnings are issued, a service which quite probably will be extended to other stations in the near future.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, NOVEMBER, 1925

By J. B. KINCER

General summary.—From the Mississippi Valley eastward November was moderately cool and generally wet, except that less than the normal amount of rainfall occurred in some Atlantic coast districts. The temperature over this area averaged slightly below normal, the deficiencies in nearly all cases being 1° or 2°. The rainfall was heavy in much of the area, particularly in parts of the Southeast where, locally, more than six times the normal precipitation was received. Generally from the lower Mississippi Valley northeastward precipitation ranged from 110 to 170 per cent of the monthly normal.

In the area between the Mississippi Valley and Rocky Mountains the month was somewhat warmer than normal in most sections, the mean temperature of the northern Great Plains being from 3° to 5° above the seasonal average. In most of the southern half of this area there was an excess in precipitation, but in the northern half it was mostly deficient, some stations reporting only 14 to 20 per cent of the seasonal average. In the central Rocky Mountains normal warmth prevailed with heavy precipitation, while to the westward the temperature averaged near normal, and precipitation was mostly light. The month was especially dry in the Southwest and in most Pacific districts, with some stations reporting an inappreciable amount of rainfall.

Snowfall was unusually heavy for so early in the season in the central Rocky Mountain area and in the western Lake region, the totals being as much as a foot or more in some sections. In the interior of the Northeastern States some stations reported from 6 to 9 inches of snow, while a trace occurred as far south as central Tennessee. In the trans-Mississippi States, the extreme northern portions of Arkansas and Oklahoma represent the southern limit of snowfall. Because of the continued rainy or snowy weather, the month was generally unfavorable for seasonal farm operations in most sections from the Mississippi Valley eastward. It was especially unfavorable for the seeding of fall grains, but in the South the last half of the month was more favorable for picking and ginning cotton.

Small grains.—Early sown wheat made good progress all the month in all sections, and at the end was furnishing some pasturage in Oklahoma and Kansas, though less than usual. Later sowings germinated slowly, but generally came up to a good stand. Because of wet weather, considerable acreage was abandoned in many sections of the Ohio and Mississippi Valleys. In the upper Lake region wheat was well protected by snow at the end of the month, but in portions of the west coast region was needing rain. Buckwheat threshing was delayed by rain, but was practically finished by the end of the month. Harvesting and threshing rice was also delayed considerably by wet weather, but on the whole made fair progress.

Corn.—Because of previous wet weather, conditions were unfavorable for gathering corn during the early part of the month, the fields being muddy and the grain having too large a moisture content. There was considerable complaint of corn molding in the shock and heating in the crib. Conditions gradually improved, and during the latter part of the month, husking and cribbing made good progress, except that they again became unfavorable in Iowa at the very last.

Cotton.—The first two weeks were unfavorable for gathering cotton. There was considerable lowering of

River	Station	Flood stage	Above flood stages—dates		Crest		
			From—	To—	Stage	Date	
ATLANTIC DRAINAGE							
Saluda.....	Pelzer, S. C.....	Feet 7	14	14	Feet 7.4	14	
EAST GULF DRAINAGE							
Tombigbee.....	Lock No. 4, Demopolis, Ala.	39	13	19	43.3	17	
MISSISSIPPI DRAINAGE							
Tuscarawas.....	Gnadenhutten, Ohio.....	9	14	-----	9.0	14	
Wabash.....	Mount Carmel, Ill.....	16	19	14	16.6	21	
Tippecanoe.....	Norway, Ind.....	6	15	22	6.2	15	
			23	23	6.2	23	
White.....	Decker, Ind.....	18	19	23	18.6	22-23	
White, West Fork.....	Anderson, Ind.....	12	14	14	12.2	14	
	Elliston, Ind.....	19	15	20	21.4	18	
	Edwardsport, Ind.....	15	10	21	18.2	19-20	
Meramec.....	Pacific, Mo.....	11	8	11	14.8	10	
	Valley Park, Mo.....	14	9	11	17.5	10	
Bourbeuse.....	Union, Mo.....	10	9	10	13.2	10	
Neosho.....	Oswego, Kans.....	17	9	9	17.2	9	
Black.....	Williamsville, Mo.....	11	9	9	11.2	9	
	Poplar Bluff, Mo.....	14	9	10	15.4	10	
	Corning, Ark.....	11	(1)	2	13.2	Oct. 20	
			8	(2)	13.1	Nov. 15	
	Black Rock, Ark.....	14	8	16	17.5	!	
	Patterson, Ark.....	9	(1)	6	10.5	Oct. 22	
			12	20	19.6	Nov. 15	
Cache.....	Swan Lake, Miss.....	25	12	29	26.4	20-21	
WEST GULF DRAINAGE							
Sabine.....	Logansport, La.....	25	11	13	26.0	12	
	Bon Weir, Tex.....	20	8	9	20.3	9	
Trinity.....	Liberty, Tex.....	25	7	18	27.3	12-14	
Little.....	Little River, Tex.....	30	7	7	42.0	7	

¹ Continued from last month.

² Continued at end of month.

MEAN LAKE LEVELS DURING NOVEMBER, 1925

By UNITED STATES LAKE SURVEY

(Detroit, Mich., Dec. 5, 1925)

The following data are reported in the Notice to Mariners of the above date:

Data	Lakes ¹			
	Superior	Michigan and Huron	Erie	Ontario
Mean level during November, 1925:				
Above mean sea level at New York.....	Feet 601.11	Feet 577.68	Feet 570.45	Feet 244.31
Above or below—				
Mean stage of October, 1925.....	-0.27	-0.21	-0.08	-0.01
Mean stage of November, 1924.....	-0.60	-1.09	-0.61	-0.64
Average stage for November last 10 years.....	-1.30	-2.33	-1.31	-1.08
Highest recorded November stage.....	-2.40	-5.24	-3.22	-3.51
Lowest recorded November stage.....	-0.39	-1.09	-0.25	+0.90
Average departure (since 1860) of November level from October level.....	-0.17	-0.27	-0.25	-0.25

¹ Lake St. Clair's level: In November, 1925, 573.06 feet.

grade and damage by rain in many sections, and, in the extreme northwestern portion of the belt, some damage by freezing. During the last half of the month conditions were much better. Picking and ginning progressed rapidly, and, at the end of the month, picking was practically completed, except in the lowlands of Arkansas where there was much stained and low-grade cotton unpicked, and, in Tennessee and North Carolina, where there was still considerable cotton in the fields.

Fruit.—During the first week apples were badly damaged by the freeze in the Ohio Valley and New York. Conditions were generally favorable for the coloring and maturing of citrus fruits in all producing sections.

Miscellaneous crops.—The freeze during the first week did considerable damage to undug potatoes and delayed

the digging of sugar beets from the Lake region west to the Rockies. This work was resumed later under more favorable conditions and, by the end of the month, was practically completed. Some truck was damaged by frost in the Gulf States, but truck generally made good progress in the Southern and west coast States. The sugar content of cane improved somewhat in Louisiana but is still low. Stripping tobacco made good progress in the Ohio Valley and eastward. The western ranges were generally in good condition throughout the month except in a few localities. In the Plains region and the Southeast, pastures that were damaged by the freeze were supplemented by fall-sown grains. In general livestock is in good to excellent condition everywhere at the end of the month.

CLIMATOLOGICAL TABLES¹

CONDENSED CLIMATOLOGICAL SUMMARY

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Condensed climatological summary of temperature and precipitation by sections, November, 1925

Section	Temperature								Precipitation							
	Section average	Departure from the normal	Monthly extremes						Section average	Departure from the normal	Greatest monthly		Least monthly		Amount	Amount
			Station	Highest	Date	Station	Lowest	Date			Station	Amount	Station	Amount		
Alabama	52.9	-1.6	2 stations	82	27	St. Bernard	18	24	4.49	+1.40	Robertsdale	8.14	Seale	2.40		
Alaska (October)	40.4	+5.1	Ketchikan	68	5	Allakaket	-9	31	8.21	-0.86	Latouche	33.22	Fort Yukon	0.31		
Arizona	50.0	-1.7	Gila Bend	89	1	Bright Angel Ranger Station	-10	8	0.71	-0.38	Bright Angel Ranger Station	3.41	Gila Bend	0.00		
Arkansas	50.4	-1.1	Jonesboro	89	13	Dutton	15	25	5.67	+2.10	Huttig	14.41	Fayetteville	1.04		
California	51.3	-1.1	Greenland Ranch	88	1	Helm Creek	-3	5	1.76	-0.70	Upper Mattole	9.19	2 stations	0.00		
Colorado	32.7	-2.2	Wray	78	1	Hermit	-21	8	0.94	+0.06	Cuchara Camp	3.70	Buena Vista	0.07		
Florida	64.5	-0.7	2 stations	91	21	Garniers	24	24	4.09	+1.78	Miami	17.72	Lake City	0.79		
Georgia	52.3	-2.4	2 stations	84	26	2 stations	10	24	4.36	+1.71	Clayton	6.86	Brunswick	1.83		
Hawaii	72.1	+0.7	Waianae	92	1	Glenwood	45	27	6.28	-2.88	Honokohau Ridge	45.00	Walawa	0.00		
Idaho	35.1	+0.5	Glenns Ferry	73	1	Stanley	-10	23	1.26	-0.68	Pritchard	2.90	Salmon	0.01		
Illinois	39.8	-2.1	Sparta	76	12	Dixon	1	8	3.12	+0.72	McLeansboro	6.70	Marengo	0.82		
Indiana	40.2	-1.9	Vevay	75	7	Goshen	2	29	4.48	+1.42	Salem	7.02	Collegeville	1.59		
Iowa	36.1	-0.5	2 stations	68	21	2 stations	-6	8	0.71	-0.85	Maquoketa	2.30	Creston	0.05		
Kansas	42.5	-1.6	2 stations	79	24	3 stations	1	8	1.47	+0.31	Sedan	4.26	Oberlin	0.16		
Kentucky	44.9	-1.4	3 stations	73	27	Farmers	8	24	5.15	+1.62	Mount Sterling	7.42	Pikeville	3.34		
Louisiana	57.9	-1.0	Schriever	86	25	3 stations	23	23	5.60	+2.01	Calhoun	12.66	Clinton	1.34		
Maryland-Delaware	43.2	-1.4	Millshoro, Del.	74	15	2 stations	6	1	3.10	+0.57	Oakland, Md.	4.84	Solomons, Md.	2.22		
Michigan	34.7	-1.5	2 stations	67	21	Sidnaw	-10	29	2.07	-0.41	Midland	4.88	St. James	0.30		
Minnesota	29.5	-0.5	2 stations	67	20	Pine River Dam	-17	28	0.78	-0.32	Gonvick	2.70	Wadena	0.08		
Mississippi	53.8	-1.4	Columbia	85	7	3 stations	22	23	5.62	+2.26	Cleveland	13.17	Poplarville	1.91		
Missouri	42.8	-1.7	Hollister	80	26	Edgerton	-2	8	2.99	+0.64	Marble Hill	7.75	Conception	0.40		
Montana	33.2	+1.2	Denton	70	19	Outlook	-10	6	0.40	-0.59	Haugan	2.25	2 stations	0.00		
Nebraska	38.0	+1.3	Alma	80	1	Pawnee City	-6	8	0.29	-0.45	Benkelman	1.01	5 stations	T.		
Nevada	38.9	-1.3	Logandale	80	1	Millett	0	22	0.56	-0.02	Lamoille	1.92	2 stations	0.00		
New England	37.3	+0.4	2 stations	68	27	Garfield, Vt.	-20	30	3.65	+0.42	Somerset, Vt.	6.46	Waterbury, Conn.	1.62		
New Jersey	42.0	-1.1	Vineland	76	15	Charlotteburg	10	1	3.40	+0.33	Dover	5.10	New Brunswick	2.48		
New Mexico	40.9	-1.6	Carlsbad	85	14	Red River Canyon	-15	15	0.32	-0.29	Taos Canyon	2.19	24 stations	0.00		
New York	37.6	+0.1	Sharon Springs No. 2	67	22	Gabriels	-11	29	3.62	+0.83	High Market	9.24	West Point	1.01		
North Carolina	47.9	-1.6	Rockingham	80	7	Mount Mitchell	0	24	3.27	+0.80	Rock House	7.81	Durham	1.37		
North Dakota	28.8	+2.2	New Salem	69	11	Carson	-17	7	0.25	-0.33	McLeod	1.09	2 stations	0.00		
Ohio	39.6	-2.0	Portsmouth	69	8	Bellevue	10	9	4.06	+1.42	Kings Mills	7.84	Findlay	2.41		
Oklahoma	48.9	-1.9	Poteau	81	12	Kenton	15	22	2.11	+0.06	Broken Bow	3.95	Kenton	0.41		
Oregon	41.6	-0.1	McMinnville	70	1	Harney Branch Experiment Station	5	5	3.05	-1.29	Mapleton	12.11	Paisley	0.04		
Pennsylvania	39.5	-1.5	Unlontown	71	15	West Bingham	4	29	3.56	+0.89	Gordon	6.07	Neshaminy Falls	1.50		
Porto Rico	76.2	-0.5	Arecibo	95	1	2 stations	56	24	7.35	+0.14	Rio Grande	17.64	Potata	2.09		
South Carolina	50.4	-3.3	4 stations	82	27	Caesar's Head	15	24	3.81	+1.52	Caesar's Head	9.52	Mars Bluff	2.00		
South Dakota	34.2	+0.6	2 stations	70	20	Eureka	-7	7	0.44	-0.26	Menno	1.43	2 stations	0.00		
Tennessee	47.2	-1.2	3 stations	76	13	2 stations	9	24	4.78	+1.40	Union City	7.43	Elizabethton	1.51		
Texas	55.8	-1.3	2 stations	93	12	Clint	10	16	2.75	+0.41	Liberty	12.67	11 stations	0.00		
Utah	36.1	-0.9	St. George	75	1	Woodruff	-20	14	1.06	+0.06	Silver Lake	3.27	2 stations	0.02		
Virginia	44.8	-1.5	Williamsburg	78	8	Burkes Garden	3	24	2.47	+0.01	Chatham	4.16	Macon	0.92		
Washington	39.2	-0.5	Centralia	68	18	Snyders Ranch	4	23	3.38	-1.40	Quinalt	17.08	Toppenish	0.42		
West Virginia	40.6	-2.4	Glenville	78	4	Terra Alta	6	1	3.66	+1.05	Rowlesburg	6.62	Upper Tract	0.65		
Wisconsin	32.1	-1.6	Mondovi	66	20	2 stations	-16	28	0.99	-0.80	Watertown	2.05	Grantsburg	0.27		
Wyoming	30.8	-1.3	Eden	68	22	Riverside	-11	20	0.57	-0.10	Snake River	2.77	3 stations	0.00		

¹ For description of tables and charts, see REVIEW, January, 1925, p. 42.

² Other dates also.